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Juei-Mei Wang

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WEI TE CHUNG
FOXCONN INTERNATIONAL, INC.
1650 MEMOREX DRIVE
SANTA CLARA, CA 95050

EXAMINER

HARRIER, JASON D

ART UNIT

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| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 10/748,312 | Applicant(s) WANG, JUEI-MEI | |
| | Examiner Jason D. Harrier | Art Unit 3628 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>12/29/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 7-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claims 7-11, the invention, as defined by the claims and as best understood merely manipulate an abstract idea or perform a purely mathematical algorithm without any limitation to a practical application in the technological arts. The invention is implemented on a computer; therefore, the invention is directed to the technological arts. However, the claimed invention integrates material product costs in order to calculate the actual material costs of a product. The invention does not require physical acts to be performed outside the computer independent of and following the steps to be performed by a programmed computer, where those acts involve the manipulation of tangible physical objects and result in the object having a different physical attribute or structure. See *Diamond v. Diehr*, 450 US at 187, 209 USPQ at 8. The steps of computer calculating material costs of a product, calculating unit purchase expenses, calculating historical purchase costs, and adding the costs of each material consumed to calculate the total material cost of a product does not impose independent limitations on the scope of the claim beyond those required by the mathematical operation and abstract limitations because the adding of material costs is not actual measured values of physical phenomena. In re *Galnovatch*, 595 F.2d at 41 n.7, 201 USPQ at 145 n.7; In re *Sarker*, 588 F.2d at 1331, 200 USPQ

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at 135. The steps of "adding or calculating" have no direct effect on the physical world outside the computer. Thus, the claimed invention merely inputs data into the system and performs a mathematical algorithm without any limitation to a practical application as a result of the algorithm or outcome and is therefore deemed to be non-statutory.

Furthermore, in determining whether the claimed subject matter is statutory under 35 U.S.C. 101, a practical application test should be conducted to determine whether a "useful, concrete and tangible result" is accomplished. See *AT&T Corp. v. Excel Communications, Inc.*, 172 F.3d 1352, 1359-60, 50 USPQ2d 1447, 1452-53 (Fed. Cir. 1999); *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1600 (Fed. Cir. 1998).

An invention, which is eligible for patenting under 35 U.S.C. 101, is in the "useful arts" when it is a machine, manufacture, process or composition of matter, which produces a concrete, tangible, and useful result. The fundamental test for patent eligibility is thus to determine whether the claimed invention produces a "use, concrete and tangible result". The test for practical application as applied by the examiner involves the determination of the following factors"

(a) "Useful" - The Supreme Court in *Diamond v. Diehr* requires that the examiner look at the claimed invention as a whole and compare any asserted utility with the claimed invention to determine whether the asserted utility is accomplished. Applying utility case law the examiner will note that:

- i. the utility need not be expressly recited in the claims, rather it may be inferred.
- ii. if the utility is not asserted in the written description, then it must be well established.

(b) "Tangible" - Applying *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994), the examiner will determine whether there is simply a mathematical construct claimed, such as a disembodied data structure and method of making it. If so, the claim involves no more than a manipulation of an abstract idea and therefore, is nonstatutory under 35 U.S.C. 101. In *Warmerdam* the abstract idea of a data structure became capable of producing a useful result when it was fixed in a tangible medium, which enabled its functionality to be realized.

(c) "Concrete" - Another consideration is whether the invention produces a "concrete" result. Usually, this question arises when a result cannot be assured. An appropriate rejection under 35 U.S.C. 101 should be accompanied by a lack of enablement rejection, because the invention cannot operate as intended without undue experimentation. In other words, the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. In *re Swartz*, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is "irreproducible" claim should be rejected under section 101). The opposite of "concrete" is unrepeatable or unpredictable. Resolving this question is dependent on the level of skill in the art.

The claims, as currently recited, appear to be directed to nothing more than a series of steps including calculating material costs of a product, calculating unit purchase expenses, calculating historical purchase costs, and adding the costs of each material consumed to calculate the total material cost of a product without any useful, concrete and tangible result and are therefore deemed to be non-statutory. While these numbers may be concrete and/or useful, there does not appear to be any tangible result.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. **Claims 1-11** are provisionally rejected on the ground of nonstatutory double patenting over claims 1 and 7-11 of copending Application No. 10/748872 (U.S. Patent Publication No. US 2004/0143488 A1). This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

Claim 1 of copending Application No. 10/748872 discloses:

1. A system for integration of actual product costs for calculating actual costs of a product, the system comprising a web server and a database server, wherein: the database server comprises a database for storing cost variable definition data, operation center definition data, manufacturing expenses data, purchase data, inventory data and consumed material data, said cost variable definition data comprising cost variance (hereinafter "variance") related data including a cost variable code field, a cost variable name field, a cost variable unit field and other fields, said operation center definition data comprising data on cost variables and work centers of each of operation centers, said manufacturing expenses data comprising expenses of each of manufacturing expenses accounts, said purchase data comprising purchase date, material number, material name, purchase quantity, purchase unit price, purchase expenses, said inventory data comprising current period inventory data and initial inventory data, said consumed material data comprising product name, product number, current period produced quantity, and all consumed materials' numbers, names and quantities; and the web server

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comprises: a value-added costs integration module for calculating value-added costs of a product, the value-added costs integration module comprising: a cost group file creation sub-module for defining cost groups, manufacturing expenses accounts and cost variables in each cost group, and for calculating the manufacturing expenses of each cost group based on the manufacturing expenses data and the cost variable definition data; an operation center variance calculation sub-module for calculating the sum of all the operation centers' variances and each product's variance for each operation center, based on the operation center definition data and the work time data on work orders; a cost group apportionment sub-module for specifying a ratio of each cost group's manufacturing expenses apportioned to each operation center; and a value-added costs calculation sub-module for calculating each operation center's total costs, each cost group's manufacturing costs corresponding to the operation center, and the operation center's apportioned variance; a material costs integration module for calculating material costs of a product, the material costs integration module comprising: a current period purchase costs calculation sub-module for calculating purchase expenses apportioned to each of units of a material and current period purchase costs of a unit of the material based on purchase data of the material; a historical purchase costs calculation sub-module for calculating historical purchase costs of a unit of the material based on the inventory data and the current period purchase costs; a material costs calculation sub-module for calculating costs of each material consumed in a product based on the quantity of the consumed material, historical purchase costs of a unit of the material and the produced quantity of the product, and for calculating the material costs of the product based on the costs of each material consumed in the product; and an actual costs

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integration module for calculating actual costs of the product by summing up the value-added costs and the material costs of the product.

Claims 7-11 of copending Application No. 10/748872 disclose:

A material costs integration module further comprises a purchase data gathering sub-module for gathering current period purchase data of the material to obtain a total purchase quantity, a total purchase value and total purchase expenses of the material.

A system for integration of actual product costs, wherein the material costs integration module further comprises a purchase data retrieval sub-module for retrieving purchase data of the material.

A system for integration of actual product costs, wherein the material costs integration module further comprises an inventory data retrieval sub-module for retrieving the inventory data of materials.

A system for integration of actual product costs, wherein the material costs integration module further comprises a consumed material data retrieval sub-module for retrieving the consumed material data of the product.

A computer-enabled method for integration of actual product costs in order to calculate actual product costs of a product, the method comprising the steps of: (a) calculating value-added costs of a product, comprising: (a1) defining cost variables, codes and other related data for generating cost variable definition data; (a2) defining work centers in each of operation centers and determining cost variables of each product in order to generate operation center definition data; (a3) obtaining manufacturing expenses information and saving the information as manufacturing expenses data; (a4) defining cost groups, and manufacturing expenses accounts

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and cost variables in each cost group based on the cost variable definition data and manufacturing expenses definition data, and calculating manufacturing expenses of each cost group; (a5) obtaining work time data on work orders, summing up all the work time on work orders of each work center in each operation center, and calculating an operation center total variance and product variances of each operation center; (a6) defining an apportioned variance to be apportioned to each operation center from the cost group's manufacturing expenses; and (a7) calculating the value-added costs of each product based on the manufacturing expenses of each cost group, the apportioned variance of each operation center, the operation center total variance of each operation center, and a product variance of that product; (b) calculating material costs of a product, comprising: (b1) obtaining purchase data and saving the data in the database; (b2) calculating current period purchase expenses apportioned to each of units of each material and current period costs of each unit of each material; (b3) obtaining inventory data and saving the data in the database; (b4) calculating historical purchase costs of each unit of each material; (b5) obtaining consumed material data of a product and saving the data in the database; (b6) calculating costs of each material consumed in the product; and (b7) summing up costs of all materials consumed in the product to obtain material costs of the product; and (c) adding the value-added costs and the material costs of a product to obtain actual costs of the product.

Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claims 1 and 11 of copending Application No. 10/748872 differ since they further recite additional claim limitations. However, it would have been obvious to one of ordinary skill in the art to modify claims 1 or 11 of copending Application No. 10/748872 by removing the additional limitations resulting generally in the claims of the present application since the claims of the present application and the claims of copending Application No. 10/748872 actually perform a similar function. It is well settled that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ 184 (CCPA 1963). Also note *Ex parte Rainu*, 168 USPQ 375 (Bd. App. 1969). Omission of a reference element whose function is not needed would be obvious to one of ordinary skill in the art.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-11** are rejected under 35 U.S.C. 102(e) as being anticipated by Shimizu et al. (U.S. Patent Pub. No. US 2003/0037014 A1).

As per Claim 1, Shimizu et al. disclose a system for integration of material costs of a product for calculating material costs of a product based on purchase data, inventory data and material consumption data, the system comprising a web server and a database server, (0103; 0146; 0513) the database server comprises a database for storing purchase data, inventory data

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and material consumption data, the purchase data include columns for: quantity of purchased material, unit price of purchased material, and purchase expenses, the inventory data include columns for: initial inventory quantity and initial inventory value of each material, and the material consumption data include columns for: a current period production quantity and a material consumption quantity of each product (0146; 0155; 0160; 0161; 0225-0248); and the web server comprises: a current period purchase costs calculation module for calculating purchase expenses and purchase costs apportioned to each unit of each material in a current period (0184; 0185; 0187); a historical purchase costs calculation module for calculating historical purchase costs of each material (0184; 0185; 0187); and a material costs integration module for calculating material costs consumption in each unit of a product (0184; 0185; 0187; 0275).

As per Claim 2, Shimizu et al. further discloses wherein the web server further comprises a purchase data summarizing module for summing up purchase data of each material to obtain a current period's total purchase quantity, total purchase value and total purchase expenses of each material. (0225-0248)

As per Claim 3, Shimizu et al. further discloses wherein the web server further comprises a purchase data retrieval module for obtaining current period purchase data from a purchase management system. (0207; 0208; 0209; 0225-0248; 0397-0401)

As per Claim 4, Shimizu et al. further discloses wherein the web server further comprises an inventory data retrieval module for obtaining current period inventory data from an inventory management system. (0207; 0208; 0209; 0225-0248; 0397-0401)

As per Claim 5, Shimizu et al. further discloses wherein the web server further comprises a material consumption data retrieval module for obtaining current period material consumption data of products from a production management system. (0207; 0208; 0209; 0225-0248; 0397-0401)

As per Claim 6, Shimizu et al. further discloses wherein the web server further comprises a material costs enquiry module, for obtaining data on each material's costs, the historical purchase costs of each material, and the current period purchase costs of the material. (0207; 0208; 0209; 0225-0248; 0397-0401)

As per Claim 7, Shimizu et al. discloses a computer-enabled method for integration of material costs for calculating material costs of a product based on purchase data, inventory data and material consumption data, the method comprising the steps of: obtaining purchase data and storing the purchase data in a database; (0146) calculating unit purchase expenses and current purchase costs allocated to each unit of each material based on the purchase data; (0183; 0186) obtaining inventory data and storing the inventory data in the database; (0146) calculating historical purchase costs of a unit of each material based on the inventory data; (0183; 0186) obtaining material consumption data and storing the material consumption data in the database; (0146) calculating costs of each material consumed in the product based on the material consumption data; (0183; 0186) and summing up the costs of each material consumed in the product to obtain material costs of the product. (0186)

As per Claim 8, Shimizu et al. further discloses the method for integration of material costs of a product as claimed in claim 7, wherein the step of obtaining purchase data is

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performed by accessing a purchase management system. (0103; 105) (server obtains data from a storage device containing the data, which Examiner interprets as a data management system)

As per Claim 9, Shimizu et al. further discloses the method for integration of material costs of a product as claimed in claim 7, wherein the step of obtaining inventory data is performed by accessing an inventory management system. (0103; 105) (server obtains data from a storage device containing the data, which Examiner interprets as a data management system)

As per Claim 10, Shimizu et al. further discloses the method for integration of material costs of a product as claimed in claim 7, wherein the step of obtaining material consumption data is performed by accessing a production management system. (0103; 105) (server obtains data from a storage device containing the data, which Examiner interprets as a data management system)

As per Claim 11, Shimizu et al. further discloses the method for integration of material costs of a product as claimed in claim 7, further comprising the following step after the step of obtaining purchase data and storing the purchase data in a database: summing up purchase data of each material in a current period. (0186)

Conclusion

Examiner's Note: Examiner has cited particular columns, line numbers, and paragraphs in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is

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respectfully requested that the applicant, in preparing responses, fully consider each of the references in its entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason D. Harrier whose telephone number is (571) 272-5866. The examiner can normally be reached on Monday - Friday 9:00am - 5:30pm EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Hayes can be reached on (571) 272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason D. Harrier
Art Unit 3628

JDH

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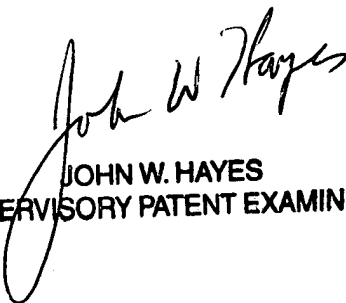
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Or fax to:

(571) 273-5866 [Informal/Draft communications, labeled "PROPOSED" or "DRAFT"]

Hand delivered responses should be brought to the Customer Service Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314.


JOHN W. HAYES
SUPERVISORY PATENT EXAMINER